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Werner Harter

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EXAMINER

RIZK, SAMIR WADIE

ART UNIT

PAPER NUMBER

2112

MAIL DATE

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10/16/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/534,603	Applicant(s) HARTER ET AL.	
	Examiner Sam Rizk	Art Unit 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- Response to the applicant's amendment dated 6/30/2008
- Claims 1-10 have been Cancelled
- Claims 11-20 have been submitted for examination
- Claims 11-20 have been rejected

Drawings Objections

1. In view of the applicant amended drawings filed on 6/30/2008, all objections to the drawings are withdrawn.

Claim(s) Objections

2. In view of the applicant amended claims 11, 12, 15, 18 and 19 filed on 6/30/2008, all objections to the claims 11, 12, 15, 18 and 19 are withdrawn.

Specification

3. In view of the applicant-amended title, all objections to the specification are withdrawn.

Claim Rejections - 35 USC § 101

4. The Examiner maintains the rejection of claim 18 under 35 USC § 101 because the claimed invention is directed to non-statutory subject matter. The Examiner agrees with the Applicant that the method claim carried out via a computer program produce tangible and concrete results. However, the computer program (software) must be stored and executed. **Non-tangible embodied computer programs** are non-statutory. The Examiner recommends incorporating claim 19 into claim 18.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - a) The Applicant in claim 1, lines 9/10 is reciting “forming **the first signature** according to the specifiable signature formation method as a function of **the data to be transmitted and of the inverted data;** If the Applicant is intended to form the first signature on the transmitted data **and** the inverted data to be transmitted this will not result in useful information (signature). A person skill in the art would have recognized that any data and its invert (complement) would produce all logic one’s “1’s”. If the Applicant is intended to form the first signature on the data to be transmitted then form **another** “first signature” on the inverted data to be transmitted, this limitation has to be clearly and distinctly cited in the claim language. The “two” first signatures must be distinctly differentiated. Another remark, the Applicant has already cited a “first signature” being formed on the data to be transmitted in lines 2/3 of claim1.
 - b) “transmitting the first signature and the data” as cited in claim1, line 1 is not distinct whether the “first signature” is the one formed on “the transmitted data” or “The inverted data to be transmitted”.

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c) Same arguments and rejection applies to the formation of the “second signature” cited in lines 13/14 of claim 1.

6. Claim 20 is rejected for the same reasons as per claim 1.

Response to Arguments

7. Applicant's arguments with respect to claims 11 and 20 filed on 6/30/2008 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 11-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Brey et al. US patent no. 5274646 (Hereinafter Brey).
9. In regard to claim 1, Brey teaches:
- A method for transmitting data, comprising:
 - forming, according to a specifiable signature formation method, a first signature as a function of the data to be transmitted;
(col. 6, lines (25-27), ECC is the “first signature” in Brey)
 - transmitting in messages the first signature together with the data;
(col. 6, lines (48-50) in Brey)
 - forming a second signature according to the specifiable signature formation method as a function of the transmitted data;

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(col. 6, lines (50) – Brey error checks DU+ECC in the ECC logic (figure 1, ref.

(13) by forming a second signature (ECC) and comparing the first signature with the second signature)

- comparing the first signature with the second signature;

(col. 6, lines (50) – Brey error checks DU+ECC in the ECC logic (figure 1, ref.

(13) by forming a second signature (ECC) and comparing the first signature with the second signature)

- inverting the data to be transmitted;

(TABLE in col. 8, “second fetch wherein the DU is inverted)

- forming the first signature according to the specifiable signature formation method as a function of the data to be transmitted and of the inverted data;

(TABLE in col. 8, “second fetch wherein the DU is inverted)

- transmitting the first signature and the data;

(TABLE in col. 8, “second fetch wherein the DU is inverted)

- inverting the transmitted data;

(Figure 1, ref. (32) in Brey)

- forming the second signature according to the specifiable signature formation method as a function of the inverted transmitted data and the transmitted data; and

(TABLE in col. 8, “second fetch wherein the DU is inverted)

- comparing the first signature with the second signature.

(Figure 9 in Brey)

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10. in regard to claim 12, Brey teaches:

- The method as recited in Claim 11, wherein:
- at least one of the first signature and the second signature is formed in a bit parallel manner in accordance with a signature register having multiple inputs.

(Figure 1, ref. (11) "DU+ECC" in Brey)

11. in regard to claim 13, Brey teaches;

- The method as recited in Claim 11, wherein:
- at least one of the first signature and the second signature is formed over several messages.

(Figure 2, ref. (64) & (65) in Brey)

12. in regard to claim 14, Brey teaches;

- at least one of the first signature and the second signature is transmitted by being distributed over several messages.

(figures 3-5 in Brey)

13. In regard to claim 15, Brey teaches:

- The method as recited in Claim 11, wherein:
- the data to be transmitted includes one of:
- input data of a precision of one bit and that arrives at processing units in messages via data buses, and

(Figure 1, ref. (11) in Brey)

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- calculation results that are redundantly generated in parallel on multiple computers, in order to check a match of the data only the corresponding signatures are transmitted.

(Figure 1 in Brey)

14. In regard to claim 16, Brey teaches:

- The method as recited in Claim 11, wherein:
- the method is used for checking a memory content of a memory area of one of a read-only memory, flash memory, and a read-write memory.

(Figure 1, ref. (11) in Brey)

15. In regard to claim 17, Brey teaches;

- The method as recited in Claim 16, wherein:
- the data of the memory content to be verified are inverted,
- a first signature is formed according to the specifiable signature formation method as a function of the data to be verified and of the inverted data and is stored as a setpoint signature in the memory area of the one of the read-only memory, the flash memory, and
(col. 6, lines (50) – Brey error checks DU+ECC in the ECC logic (figure 1, ref. (13) by forming a second signature (ECC) and comparing the first signature with the second signature)
- the read-write memory, in order to verify the transmitted data located in the memory area to be verified, the transmitted data is inverted, and

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- as a function of the inverted transmitted data and of the transmitted data, the second signature is formed according to the specifiable signature formation method and is compared with the setpoint signature.

(col. 6, lines (50) – Brey error checks DU+ECC in the ECC logic (figure 1, ref.

(13) by forming a second signature (ECC) and comparing the first signature with the second signature) and (TABLE in col. 8) in Brey

16. Claim 18 is rejected for the same reasons as per claim 11.

17. Claim 19 is rejected for the same reasons as per claim 11.

18. In regard to claim 20, Brey teaches:

- A control unit for a motor vehicle, comprising:
 - at least one processing unit; and
- (Figure 1 in Brey)
- a memory element in which a computer program is stored that is executable on the at least one processing unit, wherein when the at least one processing unit executes the computer program the following are performed:

(Figure 1 in Brey)

- forming, according to a specifiable signature formation method, a first signature as a function of data to be transmitted;

(col. 6, lines (25-27), ECC is the “first signature” in Brey)

- transmitting in messages the first signature together with the data;

(col. 6, lines (48-50) in Brey)

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- forming a second signature according to the specifiable signature formation method as a function of the transmitted data;
(col. 6, lines (50) – Brey error checks DU+ECC in the ECC logic (figure 1, ref. (13) by forming a second signature (ECC) and comparing the first signature with the second signature)
- comparing the first signature with the second signature;
(col. 6, lines (50) – Brey error checks DU+ECC in the ECC logic (figure 1, ref. (13) by forming a second signature (ECC) and comparing the first signature with the second signature)
- inverting the data to be transmitted;
(TABLE in col. 8, “second fetch wherein the DU is inverted)
- forming the first signature according to the specifiable signature formation method as a function of the data to be transmitted and of the inverted data;
transmitting the first signature and the data;
(TABLE in col. 8, “second fetch wherein the DU is inverted)
- inverting the transmitted data;
(Figure 1, ref. (32) in Brey)
- forming the second signature according to the specifiable signature formation method as a function of the inverted transmitted data and the transmitted data;
and comparing the first signature with the second signature.
(TABLE in col. 8, “second fetch wherein the DU is inverted)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Rizk whose telephone number is (571) 272-8191. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronics Business Center (EBC) at 866-217-9197 (toll-free)

/Sam Rizk/

Examiner, Art Unit 2112

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Supervisory Patent Examiner, Art Unit 2100